CHVAPIL, M.

Proteins in normal pulmonary tissue. I. Effect of aging.
Cesk. fysiol. 4 no.3:338-341 1955.

1. Ustav hygieny prace a chorob z povolani, Praha.
(LUNGS, metabolism,
proteins, age factor in rats)
(PROTEINS, metabolism,
lungs, age factor in rats)
(AGING, physiology,
age factor in lung proteins in rats)

CHVAPIL, M.; KRAJICEK, M.

Analysis of some theoretical problems in the use of collagen in medicine. Cas. lek. Cesk. 105 no.2:Lek. ved. zahr. 1:16-23 14 Ja '66.

1. Ustav hygieny prace a chorob z povolani v Praze (reditel prof. dr. J. Teisinger, DrSc.) a Ustav klinicke a experimentalni chirurgie v Praze (reditel prof. dr. B. Spacek, DrSc.).

CHVAPIL, M. (Praha 10, Srobarova 48); BUDINSKY, J.

The value of study of reactivity of connective tissue for obstetrics and gynecology. Cesk. gynek. 30 no.6:428-434 Ag '65.

1. Ustav hygieny prace a chorob z povolani v Praze (reditel prof. dr. J. Teisinger, DrSc.) a Gyn.-por. odd. Obvodniho ustavu narodniho zdravi v Beroune (vedouci MUDr. J. Budinsky, CSc.).
Submitted January 8, 1965.

CZECHOSLOVAKIA / Human and Animal Physiology. Metabolism. T-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3065

Author : Chvapil, M.
Inst : Not given
Title : Studies in Fibroplasia. III. Oxyproline in the Scleroproteins of Rat Lungs During the Process of Ontogeny

Orig Pub : Ceskosl. fysiol., 1956, 5, No 4, 433-439

Abstract : In 2 - 18 day-old rats the oxyproline content in the scleroproteins of the lungs amounted to 6.1% in 3-months-old rats to 10.8%, and in animals more than 1 year old to 11.2%. In a newborn infant and in a man of 70, the oxyproline contents of the lung scleroproteins were equal (11.5 and 11.7% respectively); they also were equal in the scleroproteins of uterine muscle and of fibromyoma in women of various ages. The author

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CZECHOSLOVAKIA / Human and Animal Physiology. Metabolism. T-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3065

is of the opinion that the "maturity" of collagen depends on the amount of oxyproline in its molecule. -- S. Ya. Marmorshteyn

Card 2/2

CZECHOSLOVAKIA/Human and Animals (Normal and Pathological). Metabolism. Nitrogen Metabolism. T-2

Abs Jour : Ref Zhur - Biol., No 16, 1958, 74464

Author : Chvapil, M.
Inst : -
Title : Scleroproteins of Organs in the Process of Ontogenesis.

Orig Pub : Ceskosl. gastroenterol. a vyziva, 1956, 10, No 4-5, 225-227.

Abstract : No abstract.

Card 1/1

CHVAPIL M.

EXCERPTA MEDICA Sec.5. Vol.10/2 Gen.Pathology Feb 57

398. CHVAPIL M. Úst. Hyg. Práce, Chorob z Povolání, Praha. *Studie o fibroplasii. V. Biochemické sledování vaziva v plicích krys normálních a krys s experimentální silikosou. Studies in fibroplasia. V. Biochemical investigation of connective tissue in the lungs of normal rats and rats with experimental silicosis PRACOVNI LEKARSTVI(Praha) 1956, 8/4 (250-254) Graphs 2 Tables 3 Illus. 5

By the method of Lowry, Gilligan and Katersky the increase in sclero-proteins in the lungs of rats 2, 4 and 6 months after the intratracheal application of 50 mg. SiO_2 was studied. As early as after 4 months, a marked increase in scleroproteins takes place; the increase in scleroproteins was due to the new formation of collagen; 15.4% elastin was found in the sclero-proteins from rat lungs with 6 months' experimental silicosis, whereas the lungs of normal rats contained 37.5-18.0% of elastin, in relation to the age of the rat. The distribution of the sclero-proteins in the lung is described. (V, 15*)

BUDINSKA, M.; BUDINSKY, J.; KOUBA, K.; CHVAPIL, M.

Etiology and pathogenesis of uterine myomata. Cesk. gyn. 21 no.5: 329-334 Sept 56.

1. I. gyn. -por. klinika KU, prednosta prof. Dr. K. Klaus - KUNZ Usti nad Labem Ustav hygieny prace a chorob z povolani, prednosta prof. Dr. J. Teissinger.

(LEIOMYOMA, etiology and pathogenesis
uterus, clin. statist. (Cz))
(UTERUS NEOPLASMS, etiology and pathogenesis
leiomyoma, clin. statist. (Cz))

CHVAPIL, M., MUDr.; BUDINSKY, J., MUDr.; BUDINSKA, M., MUDr.; KOUBA, K., MUDr.

Biochemical study of the connective tissue from normal and fibromyomatous uteri. Cesk. gyn. 21 no.5:334-339 Sept 56.

1. Ustav hygieny prace a chorob z povolani, red. prof. Dr. J. Teissinger - I. gynaekologickoporodnicka klinika prof. Dr. Klause - KUNZ, Usti n. L.

(UTERUS NEOPLASMS
leiomyoma, biochem. of connective tissue (Cz))
(LEIOMYOMA
uterus, biochem. of connective tissue (Cz))

CZECHOSLOVAKIA / Human and Animal Physiology. Metabolism. T-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3066

Author : Chvapil, M.
Inst : Not given
Title : Studies in Fibroplasia. IV. The Scleroproteins of Lungs, Liver, Kidneys, and Myocardium During Ontogeny in Rats

Orig Pub : Ceskosl. fysiol., 1957, 6, No 1, 74-82

Abstract : The scleroprotein contents (collagen and elastin) of the organs of rats were determined according to the Louri method (1. Biol. Chem., 1941, 139, 795). As the animals grew older (2 days to 1 year), a gradual rise was noted in the scleroproteins of the lungs. In liver and myocardium, the increase continued till the 70th day of life with no further changes afterward, and in the kidneys the scleroprotein rise did not come to an end until the 260th day. The greatest concentration of

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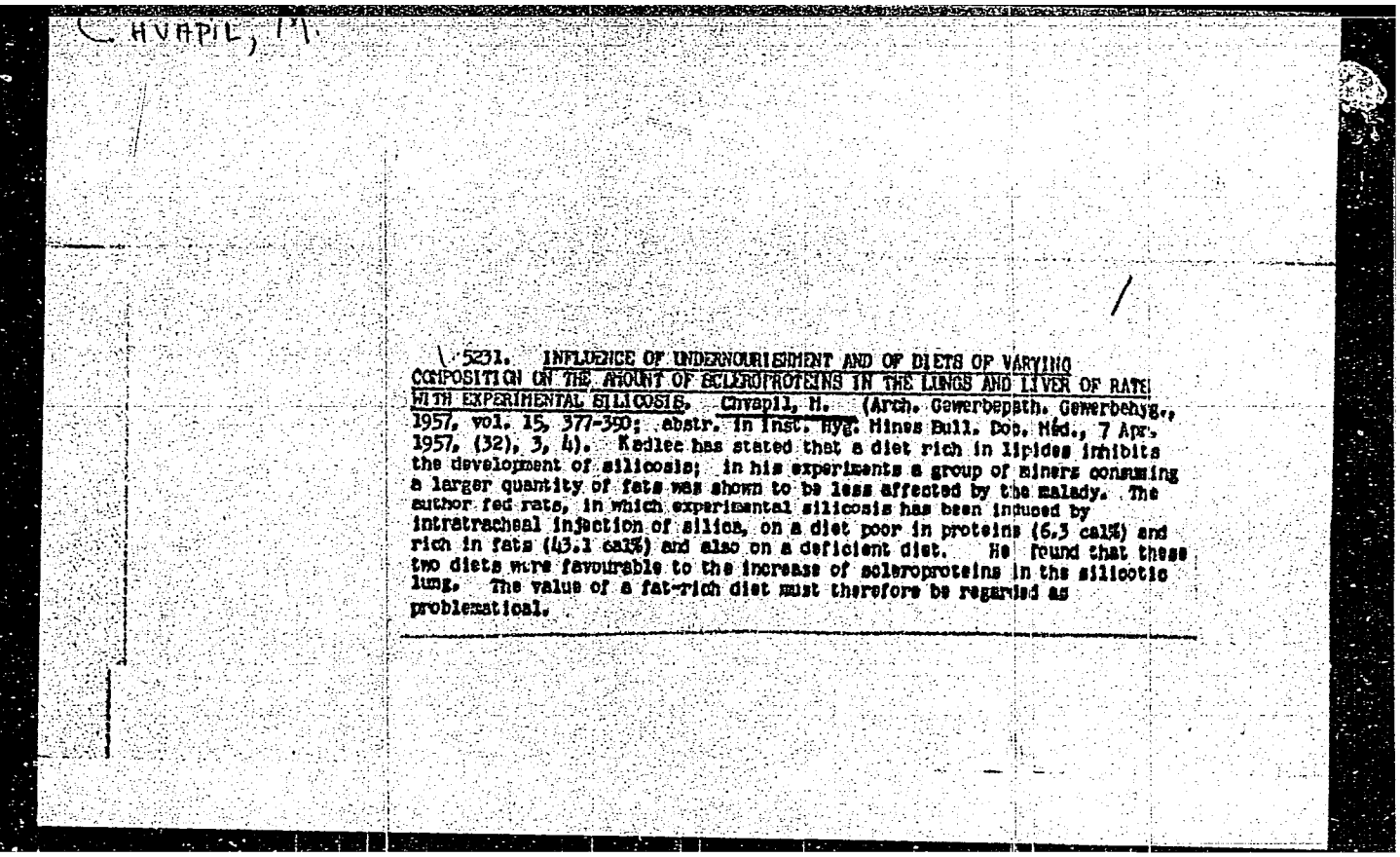
Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3066

scleroproteins was discovered in the lungs (3.7 - 12.7% of dry organ weight), the smallest in the liver (0.68 - 1.26%). With increasing age, a relative decrease in the contents of elastin was also noted in the lungs, liver and myocardia of the animals. -- S. Ya. Marmorshteyn

CHVAPIL, M.; HRUZA, Z.

Studies on fibroplasia. VI. Effect of malnutrition and of diets with various protein contents on organic scleroprotein content in rats in physiological fibroplasia. Cesk. fysiol. 6 no.3:329-336 Aug 57.

1. Ustav hygieny prace a chorob z povolani, laborator pro fysiologii a pathofysiologii premeny latek, CSAV, Praha.
(PROTEINS, metabolism,
scleroproteins, eff. of malnutrition & diets with various protein contents on synthesis (Cz))



CHVAPIL, M.

5231. INFLUENCE OF UNDERNOURISHMENT AND OF DIETS OF VARYING COMPOSITION ON THE AMOUNT OF SCLEROPROTEINS IN THE LUNGS AND LIVER OF RATS WITH EXPERIMENTAL SILICOSIS. Chvapil, M. (Arch. Gewerbepath. Gewerbehyg., 1957, vol. 15, 377-390; abstr. in Inst. Hyg. Mines Bull. Dep. Méd., 7 Apr. 1957, (32), 3, 4). Kadlec has stated that a diet rich in lipides inhibits the development of silicosis; in his experiments a group of miners consuming a larger quantity of fats was shown to be less affected by the malady. The author fed rats, in which experimental silicosis has been induced by intratracheal injection of silica, on a diet poor in proteins (6.3 cal%) and rich in fats (43.1 cal%) and also on a deficient diet. He found that these two diets were favourable to the increase of scleroproteins in the silicotic lung. The value of a fat-rich diet must therefore be regarded as problematical.

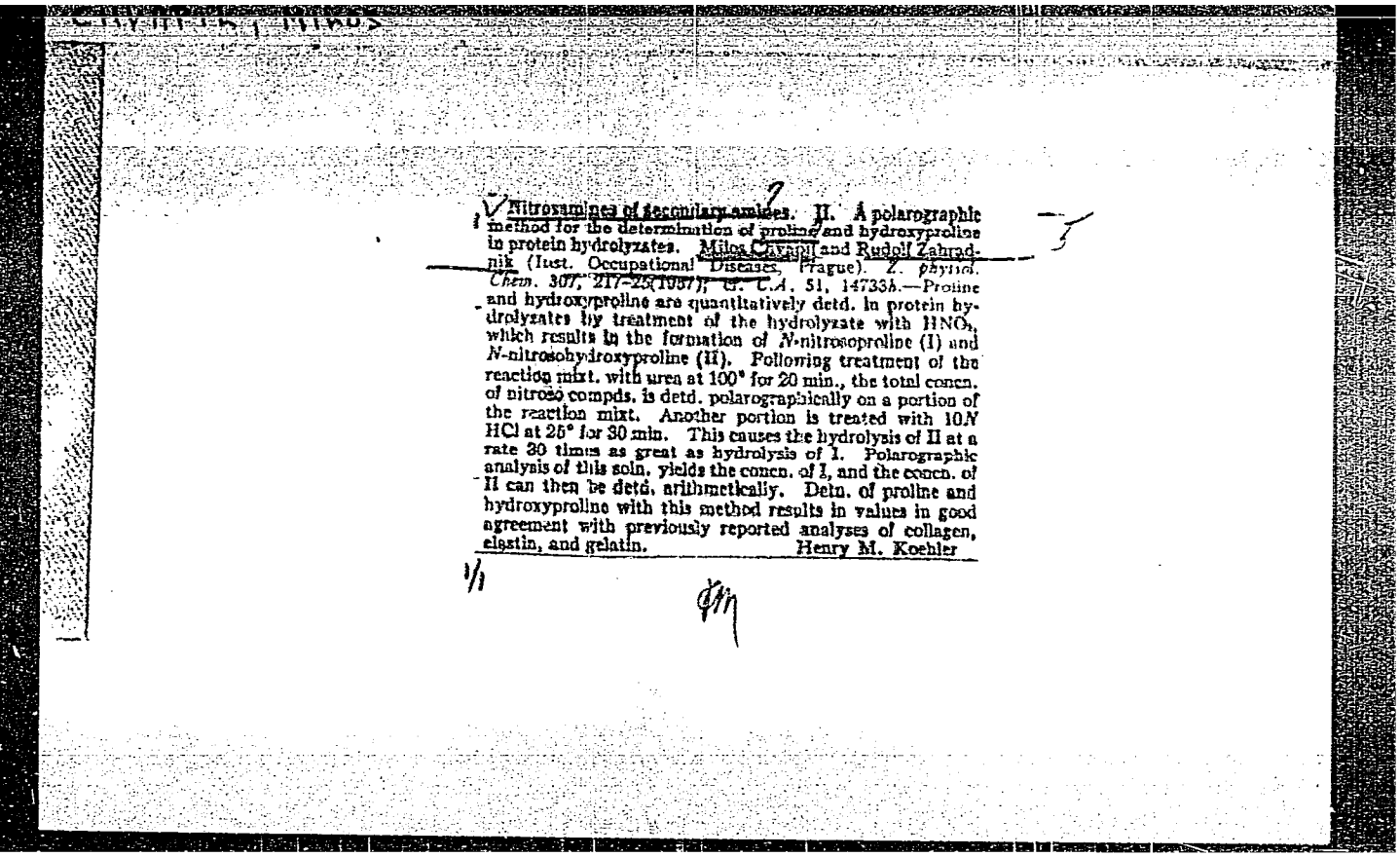
EXCERPTA MEDICA Sec.17 Vol.4/3 Public Health,etc. Mar58

CHVAPIL, M.

887. STUDIES ON FIBROPLASIA. VII. THE INFLUENCE OF UNDERNUTRITION AND DIETS OF VARIOUS COMPOSITION ON THE AMOUNTS OF SCLEROPROTEIN IN THE LUNGS AND LIVER OF RATS WITH EXPERIMENTAL SILICOSIS. Studie o fibroplasii. VII. Vliv podvýživy a diet různého složení na množství skleroproteinů plic a jater u krys s experimentální silikosou - Chvapil M. Úst. Hyg. Práce a Chor. z Povolání, Praha - PRACOVNÍ LÉK. (Praha) 1957, 9/3 (180-186) Graphs 3 Tables 7

Low protein and high fat diets significantly accelerate the increase in scleroproteins in silicotic lungs. The question of the advisability of high fat diets for miners with silicosis is discussed. In rats kept for two months on a hypocalorific diet, the rate of scleroprotein increase in the lung is the same as in rats on a normal Larsen diet. The different metabolic activities of liver and lung scleroproteins were shown. The possibilities of influencing the growth of connective tissue under conditions of pathological and physiological fibroplasia by means of diet are discussed.

(XVII, 5)



Nitrosamines of secondary amides. II. A polarographic method for the determination of proline and hydroxyproline in protein hydrolyzates. Miloš Červinka and Rudolf Zahradník (Inst. Occupational Diseases, Prague). *Z. physiol. Chem.* 307, 217–25(1957); cf. *C.A.* 51, 14733h.—Proline and hydroxyproline are quantitatively detd. in protein hydrolyzates by treatment of the hydrolyzate with HNO_2, which results in the formation of *N*-nitrosoproline (I) and *N*-nitrosohydroxyproline (II). Following treatment of the reaction mixt. with urea at 100° for 20 min., the total concn. of nitroso compds. is detd. polarographically on a portion of the reaction mixt. Another portion is treated with 10*N* HCl at 25° for 30 min. This causes the hydrolysis of II at a rate 30 times as great as hydrolysis of I. Polarographic analysis of this soln. yields the concn. of I, and the concn. of II can then be detd. arithmetically. Detn. of proline and hydroxyproline with this method results in values in good agreement with previously reported analyses of collagen, elastin, and gelatin. Henry M. Koehler

CHVAPIL M.

EXCERPTA MEDICA Sec 20 Vol 2/6 Gerontology June 59

811. **Studies in fibroplasia. VIII. Changes in the rate of hydrolysis of connective tissue proteins during aging.** CHVAPIL M. and ZAHRADNIK R. Inst. of Industr. Hyg. and Occupat. Dis., Prague *Physiol. Bohem.* 1958, 7 3 (227-233) Tables 3

The rate of hydrolysis of gelatin prepared from collagen of various origins and from both young and adult organisms was studied. It was found that mechanically prepared collagen from the tail tendon of young rats was decomposed 60% more rapidly than was collagen of the same origin from adult rats. These differences were less evident in collagen prepared by repeated alkaline extraction from calf and bull lungs. After repeated washing of the collagen in citrate buffer, all types of collagen examined (collastromin), with the exception of the collagen from the tail tendon of young rats, were decomposed 20-25% more rapidly than unmodified collagen.

Hahn – Prague

CHVAPIL, M

"Report on the symposium on connective tissues held in Moscow, January 6-8."

CESKOSLOVENSKA FYSIOLOGIE, Praha, Czechoslovakia, Vol. 7, no. 4, July 1958

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclas

CHVAPIL, M.; HOLECKOVA, E.

Collagen synthesis in tissue cultures. Cesk. fysiol. 7 no.5:480-481 Sept 58.

1. Ustav hygieny a chorob z povolani, Laborator pro fysiologii a patofysiologii premeny latek CSAV, Praha.
(COLLAGEN, metabolism,
biosynthesis in tissue cultures (Cz))
(TISSUE CULTURE,
collagen synthesis in tissue cultures (Cz))

CHVAPIL,M.; HOLMOKOVA,M.

Effect of various concentrations of silicon dioxide, colliodal silicic acid and titanium dioxide on the synthesis of collagen proteins in tissue cultures of fibroblast. Pracovni. lek. 11 no.7: 341-344 S '59.

1. Ustav hygieny prace a chorob z povolani, Praha, reditel prof. dr. Teisinger - Laborator pro fyziologii a patofyziologii metabolismu latek, CSAV,Praha.
(COLLAGEN)
(SILICA pharmacol.)
(TITANIUM)

HOLECKOVA, E.;CHYTIL, F.;HRUZA, Z.;OHVAPIL, M.

Hyperphagia following hunger and metabolic characteristics in laboratory rats and in wild mice. Cesk. fysiol. 9 no.1:16-17 Ja 60.

1. Laborator pro fysiologii a patofysiologii premeny latek CSAV a Ustav hygieny prace a chorob z povolani, Praha.
(HUNGER)

CHVAPIL, M.; ZAHRADNIK, R.

A possibility for the rejuvenation of collagen feber structures.
Cesk.fysiol. 9 no.3:237-238 My '60.

1. Ustav hygieny prace a chorob z povolani, Praha.
(COLLAGEN chem)

BUDINSKIY, J.; ZAHRADNIK, R.; CHVAPIL, M.

Spectrophotometric method for the quantitative determination of N-substituted phenothiazines and substances related to them. Apt. delo 10 no. 1:94 Ja-F '61. (MIRA 14:2)
(SPECTROPHOTOMETRY) (PHENOTHIAZINE)

CHVAPIL, M.

Physiology of the connective tissue. Cesk.fysiol.10 no.2:135-154 Mr '61.

1. Ustav hygieny prace a chorob z povolani, Praha.
(CONNECTIVE TISSUE physiol)

OTTOWICZ, Jerzy; CHVAPIL, Milos; PARADOWSKI, Zbigniew

A new method for the determination of fibrogenic activity of silica dust with the aid of frog (Rana esculenta) tests. Pat. polska 12 no.4:429-437 '61.

1. Z Pracowni Patologii Eksperymentalnej Instytutu Medycyny Pracy w Przemysle Weglowym i Hutniczym Dyrektor Instytutu: prof. dr B.Nowakowski Kierownik Pracowni: dr J.Ottowicz Z Oddzialu Krzemicy Eksperymentalnej Instytutu Higieny Pracy i Chorob Zawodowych w Pradze Dyrektor Instytutu: prof. dr J.Teissinger Kierownik Oddzialu: dr M.Chvapil.

(SILICA)

CHVAPIL, M.; HOLECKOVA, E.; CMUCHALOVA, B.

Biosynthesis of collagen in tissue cultures of pulmonary fibroblasts. Changes in the concentration of free hydroxyproline, peptide-bound and collagen proteins and hexosamine in control cultures and in cultures growing in colloidal silicic acid medium. Pracovni lek. 13 no.3: 121-125 Ap '61.

1. Ustav hygieny prace a chorob z povolani, Praha. Laborator pro fyziologii a patologii premeny latek CSAV, Praha.

(LUNGS) (COLLAGEN chem) (PROLINE chem)

CHVAPIL, M.

High fat diets in silicosis. Pracovni lek. 13 no.5:222-225 Je '61.

1. Ustav hygieny prace a chorob z povolani, Praha, red. prof. dr. J. Teisinger.

(SILICOSIS nutrition & diets)
(FATS nutrition & diets)

CHVAPIL, M.

Reaction of the connective tissue during the course of fibroplastic inflammation; development of silicotic granuloma. Pracovni lek. 13 no.6:300-306 Ag '61.

1. Ustav hygieny prace a chorob z povolani, Praha, red. prof. dr. J. Teisinger.

(SILICOSIS physiol) (CONNECTIVE TISSUE physiol)

HOLECKOVA, E.; CHYTIL, Fr.; CHVAPIL, M.; Statisticke zpracovani Z. Roth

Effect of domestication on the biological age of rats. Cas.lek.cesk 100 no.20:612-616 19 My '61.

1. Laborator pro fysiologii a patologii premeny latek CSAV a Ustav hygieny prace a chorob z povolani, Praha.

(AGING) (RATS)

KOBRLE, V.; CHVAPIL, M.

The amount of untrafiltrable and collagen-bound hydroxyproline in different organs of the rat during aging. Physiol. bohemoslov. 11 no.3: 243-248 '62.

1. Institute of Industrial Hygiene and Occupational Diseases, Prague.

(PROLINE chemistry) (COLLAGEN metabolism)
(AGING)

HRUZA, Z.; CHVAPIL, M.

Collagen characteristics in the skin, tail tendon and lungs in experimental atherosclerosis in the rat. Physiol. Bohemoslov. 11 no.5:423-429 '62.

1. Institute of Physiology, Czechoslovak Academy of Sciences; Institute of Industrial Hygiene and Occupational Diseases, Prague.
(COLLAGEN) (ARTERIOSCLEROSIS) (SKIN)
(TENDONS) (LUNG)

CHVAPIL, M.; HRUZA, Z.

Sexual differences in the amount and reactivity of connective tissue following an atherogenic diet. Physiol. Bohemoslov. 11 no.5:430-436 '62.

1. Institute of Industrial Hygiene and Occupational Diseases; Institute of Physiology, Czechoslovak Academy of Sciences, Prague.
(ARTERIOSCLEROSIS) (SEX) (COLLAGEN)
(TENDON) (LUNG) (SKIN)

CHVAPIL, M.; HOLECKOVA, E.

Lowered structural stability of collagenous fibres induced by intermittent feeding and fasting in the rat. Physiol. Bohemoslov. 11 no.6:505-509 '62.

1. Institute of Industrial Hygiene and Occupational Diseases; Institute of Physiology, Czechoslovak Academy of Sciences, Department for the Physiology and Pathophysiology of Metabolism, Prague.
(COLLAGEN) (FASTING)

CHVAPIL, M.; KOBRLE, V.; CMUCHALOVA, B.

Ultrafiltrable hydroxyproline in the blood serum as the index of the degree of collagen metabolism. Prac. lek. 14 no.2:84-87 Mr '62.

1. Ustav hygieny prace a chorob z povolani v Praze, reditel prof. J. Teisinger.

(COLLAGEN metab) (PROLINE rel cpds)

ZAGRADNIK, R. [zahradnik, R.]; KHVAPIL, M. [Chvapil, M.]; VOSTAL, Ya. [Vostal, J.]; TEYSINGER, Ya. [Teisinger,J.]

Toxicity of alcohols and potassium salts of alkylxanthogenic acids. Farm. i toks. 25 no.5:618-622 S-O '62 (MIRA 18:1)

1. Institute of Industrial Hygiene and Occupational Diseases, Prague.

CZECHOSLOVAKIA

M. CHVAPIL [Institute of Work Hygiene and Occupational Medicine (Ustav hygieny prace a chorob z povolani), Chief (redital) Prof Dr Sc J. TEISINGER, Prague.]

"Research on Pneumoconiosis."

Prague, Pracovni Lekarstvi, Vol 15, No 1, Jan 1963; pp 18-19.

Abstract: Primarily an account on the research done in silicosis in miners, on the occasion of the 10th anniversary of the founding of author's institute. Discussion of methods and tests for early diagnosis, screening of mine employees, dietary influences, drug effects on collagen formation and related processes; self-cleaning properties of pulmonary tissue; fibrogenic factors. The abundant experimental work on this general subject in rats, mice frogs, is described.

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CZECHOSLOVAKIA

B. CHUCHALOVA and H. CHVAPIL, Institute of Work Hygiene and Occupational Medicine (Ustav hygieny prace a chorob z povolani,) Chief (reditel) Prof Dr J. TEISINGER, Dr Sc; Prague.

"Role of Ascorbic Acid in the Development of Fibroplastic Inflammation."

Prague, Pracovni Lekarstvi, Vol 15, No 1, Jan 1963; pp 30-34.

Abstract [English summary modified]: In guinea pigs with carrageen granuloma, local tissular ascorbic acid increased in direct proportion to the increase in collagen; ascorbic acid also increases in rats with experimental pulmonary silicosis. In both areas, the vitamin is bound to the mucoproteins of collagen fibers. Five graphs, 28 references: 4 Czech (2 unpublished) 2 Soviet and 22 Western.

1/1

CZECHOSLOVAKIA

CHVAJIL, M. Institute for Hygiene of Work and of Professional Diseases at Prague, Head prof. J., Teisinger (Ustav hygieny prace a chorob z povolani, prednosta prof. dr. J. Teisinger.).

" The Influence of Heat and pH of the Medium on the Mechanical Properties of Collageneous Structures."

Prague, Casopis Lekaru Ceskych, Vol 102, No 9, 1 March 1963, pp 225 - 229.

Abstract [Author's English summary modified]: Effect of humid heat between 40° and 60°C with the decrease of pH below 6.5 causes increase of elasticity and decrease of strength of collageneous fibres. The explanation of this was found in the breakages of transversal bonds and the increased desorption of water under these conditions. The aging influences the stability of collagen. Use of this in practical medicine is suggested. 5 Figures, 1 Table, 1/1 7 Western, 5 Czech, 2 German references.

CZECHOSLOVAKIA

CMUCHALOVA, B., and CHVAPIL, M., Institute for Work Hygiene and Occupational Diseases (Ustav hygieny prace a chorob z povolani), Prague, Prof. Dr. J. TEISINGER, Dr of Sciences, director.

"Biochemical Changes During the Development of Carrageenin Granuloma With Deficiency of or Increased Saturation With Ascorbic Acid"

Prague, Pracovni Lekarstvi, Vol XV, No 5, June 63, pp 196-201.

Abstract [Authors' English summary, modified]: Development of granulation tissue was studied after subcutaneous application of 50 milligrams of carrageenin to the abdominal area of guinea pigs. Estimated was the content of desoxyribonucleic acid and several types of hydroxyproline as well as ascorbic acid. Ascorbic acid defficiency caused the following changes: 1. Greater accumulation of DNA does not occur. 2. The ultrafiltrable bound hydroxyproline reacts conspicuously to the absence of ascorbic acid. 3. Level of free hydroxyproline is considerably lower in scorbutic guinea pigs. 4. Collagen formation is diminished in scorbutic animals. Ascorbic-acid concentration in the tissue of control animals diminished, but increased after eight days. In scorbutic guinea pigs the concentration was negligible and unchanged. After administering ascorbic acid to scorbutic animals ascorbic-acid concentration increased enormously (about twice as much as in control animals). Changes in the ascorbic-acid concentration are closely related to changes of collagen concentration in tissue. Correlation of ascorbic acid to DNA is statistically insignificant. It appears that ascorbic-acid changes are related to collagen formation, but not to the content of cells in the inflammation focus. Thirty-five references, including 3 Czech, 3 Russian and 1 Bulgarian.

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CHVAPIL, M.

The effect of heat and pH of the medium on the mechanical properties of collagenous structures. Cas. lek. cesk. 102 no.9:225-229 1 Mr '63.

1. Ustav hygieny prace a chorob z povolani v Praze, prednosta prof. dr. J. Teisinger.
(HYDROGEN ION CONCENTRATION) (HEAT) (COLLAGEN)

KOBRLE, V.; BUDINSKY, J.; CHVAPIL, M.

Content of ultrafiltrable hydroxyproline - free and bound - in the serum of women during pregnancy and after delivery. Cas. lek. cesk. 102 no.9:241-244 1 Mr '63.

1. Ustav hygieny prace a chorob z povolani v Praze, reditel prof. dr. J. Teisinger I. porodnicko-gynekologicka klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr. K. Klaus.
(HYDROXYPROLINE) (BLOOD CHEMICAL ANALYSIS)
(PUERPERIUM) (PEPTIDES)

CMUCHALOVA, B.; CHVAPIL, M.

Biochemical changes during the course of the development of carrageenin granuloma with deficiency of, or increased saturation with, ascorbic acid. Prac. lek. 15 no.5:196-201 Je '63.

1. Ustav hygieny prace a chorob z povolani v Praze, reditel prof. dr. J. Teisinger, DrSc.
(ASCORBIC ACID) (ASCORBIC ACID DEFICIENCY)
(SCURVY) (GRANULATION TISSUE) (ALGAE)
(DNA) (HYDROXYPROLINE) (COLLAGEN)
(POLYSACCHARIDES)

KRAJICEK, M.; CHVAPIL, M.; ZASTAVA, V.

A new type of vascular prosthesis with high porosity. Rozh. chir. 42 no.9:628-633 S '63.

1. Ustav klinicke a experimentalni chirurgie v Praze, reditel prof. dr. B. Spacek, DrSc. Ustav hygieny prace a chorob z povolani v Praze, reditel prof. dr. J. Teisinger, DrSc.
(BLOOD VESSEL PROSTHESIS) (POLYMERS)

L 2060-66

ACCESSION NR: AP5027291 CZ/0053/65/01[illegible]/002/0093/0097

AUTHOR: Chvapil, M.; Macek, M.; Hurych, J. 19 B

TITLE: Physiology of fibroblasts. Study of biosynthesis of collagen in tissue cultures of fibroblasts

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 2, 1965, 93-97

TOPIC TAGS: cytology, tissue physiology, biosynthesis, biochemistry, amino acid, protein, histology, cell physiology

ABSTRACT: Physiology of fibrogenous cells, osteoblasts, and chondroblasts is discussed; morphological characteristics are described, mitochondria, cytoplasmatic granules and their composition are discussed. Free aminoacids characteristic of collagen accumulating in fibroblasts are evaluated. Biosynthesis of collagen proteins in ribosomes, shape changes in endoplasmic reticula are discussed. Investigation of collagen structure by X-ray diffraction, electron microscope, chemical analysis, and sequential

Card 1/2

L 2060-66
ACCESSION NR: AP5027291

analysis is described. Biophysics, chemistry, interaction of molecules, transverse aggregation, pathology, and homeostasis of tropocollagen , its precursors, and its polymerization are described. Study of fibroblastic effect of industrial dusts by means of tissue cultures is discussed. Certain concentration of silicic acid induce collagen formation. Collagen metabolism in diploid cells is discussed. Diploid cells die in a 3rd generation, unlike heteroploid cell strains. Diploids maintain 46 chromosomes modus. Content changes of protein in fibroblasts according to origin are described. Hydroxyproline content of cells is discussed. Collagen protein metabolism study by means of tagged amino acids and tagged S is described. Orig. art. has: 2 tables.

ASSOCIATION: Ustav hygieny prace a chorob z povolani, Prague (Institute of Work Hygiene and Occupational Diseases); Ustav vyzkumu vyvoje ditete fak. detsk. lek. KU, Prague (Institute for Research of Child Development, Faculty of Pediatrics, KU)

SUBMITTED: 00 ENCL: 00 SUB CODE: LS

NR REF SOV: 001 OTHER: 020 JPRS

Card 2/2

POUPA, O.; KROFTA,K.; PROCHAZKA,J.; CHVAPIL, M.

The resistance of the myocardium to anoxia in animals acclimated to simulated altitude. Physiol. Bohemoslov. 14 no.3: 233-237 '65.

1. Institute of Physiology, Czechoslovak Academy of Sciences and Institute of Hygiene and Occupational Diseases, Prague.

HURYCH, Josef; CHVAPIL, Milos

Relation of proline hydroxylation and collagen biosynthesis to other metabolic processes. Prac. lek. 7 no.8:342-345 O '65.

1. Ustav hygieny prace a chorob z povolani v Praze (reditel - prof. dr. J. Teisinger, DrSc.).

CZECHOSLOVAKIA

CHVAPIL, M.; HOLUSA, R.; SAFAR, S.; KRIVUCOVA, M.; Institute of Work Hygiene and Occupational Diseases (Ustav Hygieny Prace a Chorob z Povolani), Prague; 1st Dental Clinic, Faculty of General Medicine, Charles University (I. Zubni Klinika Fakulty Vseobecneho Lekarstvi KU), Prague.

"Experimental and Clinical Experience with Collagen Foam Used as Hemostatic and as Tampon."

Prague, Ceskoslovenska Farmacie, Vol 15, No 6, Jul 66, pp 300-308

Abstract [Authors' English summary modified]: Factors affecting properties of collagen foam were investigated. Optimum conditions for its preparation are described. Toxicity of its individual components, antigen properties, and the effectiveness of sterilizing it with a cobalt bomb are discussed. The relationship between the porosity, hardening grade of collagen, and conditions at storing and the porosity of the product is discussed. Biological properties of the foam are described. 14 Figures, 5 Tables, 4 Western, 1 Czech reference. (Manuscript received 12 Oct 65).

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CZECHOSLOVAKIA UDC 616.24-003.65(:546.284)-073.173-009.092.9

CHVAPIL, Milos; HOLUSA, Radim; Institute of Work Hygiene and Occupational Diseases (Ustav Hygieny Prace a Chorob z Povolani), Prague, Director (Reditel) Prof Dr J. TEISINGER.

"Relationship Between the Dose of Quartz Dust and the Extent of the Pulmonary Inflammatory Reaction. Methodical Study."

Prague, Pracovni Lekarstvi, Vol 18, No 4, May 66, pp 145-150

Abstract [Authors' English summary modified]: Rats were exposed to SiO_2 dust doses of 2 - 70 mg, with particles 1-2 microns in size. The degree of fibroproducing lung inflammation was determined on the basis of morphological, biological, and biochemical examination. No relationship was found between the density of collagen in the lungs and the amount of administered dust. The fibroproducing inflammation developed non-uniformly in the same lung; cell-granulomas and collagen fibrous nodes can exist side by side. The best indication of the extent of inflammation is the quantitative determination of hydroxyproline. A dose of 50 mg of quartz produced stronger pulmonary reaction than 20 mg; a dose of 70 mg was necrotizing. 7 Tables, 3 Western, 3 Czech references. (Manuscript received 4 Jun 65).

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CHVAPIL, Milos, MUDr.,(Praha 10, Srobarova 48)

Current status of silicosis research. Prac. lek. 17 no.7:289-297 S '65.

1. Ustav hygieny prace a chorob z povolani v Praze (reditel prof. dr. J. Teisinger, DrSc.). Submitted May 10, 1965.

SKALICKOVA, O.; DOBIAS, J.; RUDINSKY, J.; CHVAPILOVA, M.

Premenstrual suicidal tendencies. Cesk. psychiat. 55 no.2:78-81 Apr 59.

1. Psychiatricka klinika a gynekologicko-porodnicka klinika KU v Praze.

(SUICIDE,
premenstrual suicidal tendencies (Cz))
(PREMENSTRUAL TENSION, compl.
suicidal tendencies (Cz))

BUDINSKY, J., CSc.; CHVAPILOVA, Milena

Effect of neuroplegic analgosia in labor on the psychic activity of the mother. Cesk. gyn. 27[41] no.5:416-419 Je '62.

1. I. gyn.-por. klin. KU v Praze, prednosta prof. dr. K.Klaus, DrSc. Psychiatr. klin. KU v Praze, prednosta prof. dr. Vl. Vondracek.
(ANESTHESIA OBSTETRICAL) (HIBERNATION ARTIFICIAL)

CHVARKOV, A., mayor

Only with excellent indexes. Voen. vest. 41 no.9:23 S '61.
(MIRA 15:1)
(Russia--Army--Political activity)

CHVARKOV, A., mayor

A great force. Voen.vest. 41 no.10:70-72 O '61. (MIRA 15:2)
(Russia—Army—Political activity)

BECVAR, J.; JENICEK, L.; PUNCOCHAR, Z., inz.; CERNY, V., inz.; CHVATAL, inz.

Information on metallurgy. Hut listy 16 no.10:753-760 O '61.

SUCHOMEL, Frantisek; NAVRATIL, inz.; SLADEK; CERNY; CHVATAL, dr.; LIDICKY, Frantisek, inz.

Cooperation of the Ministry of Fuel and Power with people's committees in managing the power resources. Energetika Cz 11 no.8:Suppl.:Energetika 11 no.8:1-6 '61.

1. Ministerstvo paliv a energetiky (for Suchomel and Lidicky)

CHVATAL, A.

Possibilities of improving the Skoda brakes. p. 104.

ZELEZNICNI DOPRAVA A TECHNIKA. (Ministerstvo dopravy)
Praha, Czechoslovakia
Vol. 7, no. 4, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11.
Nov. 1959.
Uncl.

CHVATAL, A.

Plastics protect against corrosion. p. 871

TECHNICKA PRACA. (Rada vedeckych technichych spolecnosti pri slovenskej akademii vied) Bratislava, Czechoslovakia, Vol. 11, no. 10, Oct. 1959

Monthly List of East European Accessions (EEAI), LC Vol. 9, no. 2, Feb. 1960

Uncl.

Z/032/62/012/012/003/003
E112/E435

AUTHOR: Chvátal, A.

TITLE: Recent experience with protective thermoplastic coatings

PERIODICAL: Strojírenství, v.12, no.12, 1962, 955-960

TEXT: Various protective and decorative coatings applied to a large range of industrial and domestic metallic articles are reviewed. The properties and techniques of application of polythene, PVC, polytrifluorochloroethylene (Teflex), polytetrafluoro-ethylene (Teflon) and polyamides are discussed. Chemical resistance is improved by applying a mixture of polythene with 15% polyisobutylene. PVC films differ in corrosion resistance according to structure and physical form of the starting materials. Polytetrafluoro-ethylene is completely inert to chemical attack up to 250°C, with the exception of fluorine and molten alkali metals. Coatings from Teflon are, however, not coherent and offer little protection against corrosive chemicals. They are recommended as inhibitors of atmospheric corrosion. A permanent adhesion of the polythene layer to metal is given by the presence of polar groups formed

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Z/032/62/012/012/003/003
E112/E435

Recent experience ...

by oxidation and this also applies to adhesion between the polythene and polyamide layers. Replacing grinding, polishing or galvanizing of metal surfaces, the coating techniques may reduce production costs by as much as 30%. There are 6 figures and 1 table.

ASSOCIATION: SVÚOM, Prague

Card 2/2

Z/040/61/000/012/001/001
D005/D102

AUTHORS: Chvátal, Frant., Engineer, Kyzlink, Lad., Engineer, and Čihař, Jiří, Engineer

TITLE: What will be the development of air transportation until 2000

PERIODICAL: Letecký obzor, no. 12, 1961, 398-399

TEXT: This is the first part of an article summarizing the previously published opinions of several experts as to what will be the development of air transportation until 2000. The following are the potential features on which most experts agreed: Maximum range of commercial transports will not exceed 20,000 km, and maximum speed will be between 8 and 10,000 km/hr unless artificial gravity should become feasible. Maximum capacity will be 300-500 passengers which, however, will be fully utilized only by medium- and intermediate-range transports. Vertical take-off and landing will remain limited to the long-range, special-purpose, and very-short-range transports. Long-range (up to 20,000 km) transports will have the shape of rockets with rather small wings. Their speed will be hypersonic (up to 10,000 km) and operating alti-

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Z/040/61/000/012/001/001
D005/D102

What will be the development ...

tude will be from 20 to 100 km. Medium-range (3-6,000 km) transports will be supersonic and will operate at an altitude of about 20 km. Intermediate-range (1-3,000 km) transports will be subsonic. Short-range transports will be subsonic of the VTOL type. Airports will receive multiple parallel runways with lengths not exceeding 3,500 m. Runways will be reinforced for handling 500-ton aircraft. VTOL short- and very-short-range transports will require airports in the form of elevated platforms located within town centers. Air-traffic control will be fully automated. Air traffic controllers and aircraft crews will be limited to checking the automatic instruments, but the pilots will be permitted to override the automatic guidance in emergency cases. Fully automatic landing devices will increase the safety of flying and dependence on the meteorological situation will be reduced to a minimum.

Card 2/2

CHVATAL, Frantisek, inz.

Material wearing and obsolescence of basic funds in air transportation. Letecky obzor 5 no.12:394-395 D '61.

(Aeronautics)

CHVATAL, Frantisek, inz.; KYZLINK, Ladislav, inz.; CIHAR, Jiri, inz.

Prospects for air transportation until the year 2000; an inquiry. Letecky obzor 5 no.12:398-399 D '61.

(Aeronautics)

CHVATAL, J.

"Electromagnetic contactors."

ELEKTROTECHNIK, Praha, Czechoslovakia, Vol. 14, no. 5, May 1959

Monthly List of East European Accessions Index (EEAI), Library of Congress, Vol. 8, No. 8, August 1959

Unclassified

APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000309210011-4"

CHVATAL, J., inz.

Testing of electronic components; Czechoslovak standard No. 35 8050.
Slaboproudy obzor 22 no.12: D '61.

(Electronics)

CHVATAL, J., inz.

Valve sockets: Czechoslovak standard 35 8940. Sdel tech 9 no.6:240 Je '61.

CHVATAL, Josef, inz.

Basic units of measure. El tech obzor 52 no.11: Supplement: Prakticka priloha 52 no.11: T 51 - T 55 N'63.

CHVATAL, J., inz.

Microphones; Czechoslovak standard No.36 8210. Slaboproudy obzor 22 no.10:643-644 O '61.

NEKOLA, J.; CHVATAL, J.

The general outlook for the development of sciences and research up to the year 1980. Vestnik CSAV 70 no.5:609-617 '61.

CHVATAL, J., inz.

Measurement of television receivers: Czechoslovak standard 36 7511. Slaboproudy obzor 23 no.7:424 Jl '62.

CHVATAL, J., inz.

Two Czechoslovak standards on electric current. Slaboproudy obzor 23 no.8:483-484 Ag '62.

CHVATAL, J., inz.

Measurement of electron tubes. Slaboproudy obzor 24 no.1:51-53 Ja '63.

CHVATAL, Josef, inz.

The 1950 regulations of the Association of Electrical Engineers. El tech obzor 51 no.11: Supple Prakticka priloha 51 no.11:T71-T79 '62.

GHVATAL, Josef, inz.

High-voltage fuses; Czechoslovak standard 35 4720. Elektrotechnik 18 no.2:56-57 F '63.

HERMAN, V. (Skasov); CHVATAL,J., inz.

Mounting of electric appliances in laundry plants. Elektrotechnik 18 no.9:273 S'63.

1. Urad pro normalizaci a mereni, Praha (for Chvatal).

CHVATAL, Josef, inz.

Activities on the International Electrotechnical Commission.
El tech obzor:Suppl.:Vedecka priloha 52 no.4:T17-T24 '63.

CHVATAL, J., inz.

Czechoslovak Standard 34 5640 : Tests by Voltage. El tech obzor 52 no.8:444-446 Ag '63.

CHVATAL, J., inz.

High-voltage mast switches: Czechoslovak Standard 35 4212.
El tech obzor 52 no.11: 630-631 N'63.

CHVATAL, Jos., inz.

Czechoslovak Standard 34 3321 : Rules for working out instructions on the servicing and maintenance of high-voltage and extrahigh-voltage electric apparatus. Elektrotechnik 19 no.4:122-123 Ap '64.

CHVATAL, J., ins.

Electrical engineering regulations; Czechoslovak Standard 34 0070: Kinds of Conditions and Bases for Electric Installations. El tech obzor 52 no.12:692-694 D '63.

CHVATAL, Josef, inz.

Czechoslovak Standard 35 1363: 110 and 220 kv apparatus transformers. Elektrotechnik 19 no.5:156-157 My '64.

1. Office of Standardization and Measurement.

CHVATAL, Josef, inz.

Czechoslvak Standard 35 4201 : Rules for selection of switches. El tech obzor 53 no. 2:113-115 F '64.

Schematic symbols for electron tubes : Tesla-NT-K 041 standards. Ibid.:115

CHVATAL, Josef, inz.

Czechoslovak Standard 35 4210 : High-voltage and extrahigh-voltage disconnecting and grounding switches. El tech obzor 53 no.4:238-240 Ap '64.

CHVATAL, Josef, inz.

Condensers for heavy current installations. El tech obzor 53 no. 5:293-296 My '64.

L 54026-65 EWP(v)/T/EPR/EWP(c)/EWP(h)/EWP(l) Pf-4

ACCESSION NR: AP5016822 CZ/0017/64/053/011/0633/0636

AUTHOR: Chvatal,Josef (Engineer)

TITLE: CSN 34 5505: Symbols for electrical diagrams

15
B

SOURCE: Elektrotechnicky obzor, v. 53, no. 11, 1964, 633-636

TOPIC TAGS: electric engineering, scientific standard

ABSTRACT: The article contains changes (Change a) made in the Czechoslovak Standard 34 5505. They are based on the recommendation made by the socialist countries (Ru 162-61) and recommendations of IEC. A list of symbols is included. Orig. art. has: 108 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE,GO

NO REF SOV: 000 OTHER: 000 JPRS

Card 1/1

CHVATAL, Josef, inz.

Feeder cables and their standardization in France. El tech obzor 53 no.12:679 D '64.

NEMECEK, Lumír, inz.; CHVATAL, Josef, inz.

Protection of fixed single-phase appliances by neutral wiring.
El tech obzor 54 no.1:52-54 Ja '65.

VYKLICKY, Zdenek; CHVATAL, Milan

Precision rough casting of openings in distributors of high-pressure hydraulic transmissions. Slevarenstvi 12 no.11:462-464 N '64.

1. Juranovy zavody, Brno.

CHVATAL, VLADIMIR

14047* Experiments in the Use of Oxygen in Converters in the Conversion of Bessemer Pig Iron. **Zkušenosti s použitím kyslíku v konvertorech při zkujňování Thomasova surového železa.** (Czech.) Vladimír Chvátal. *Hutník*, v. 5, no. 6, June 1955, p. 162-165.

Results of Czech experiments in steel-making. Comparison of strength of standard Bessemer steel, Bessmer steel with O addition, and standard open-hearth steel. Graphs, table.

CHVATAL, V.

Chvátal V. Foreign Experiences with the Use of the Oxygen Lance in Converter Practice. V. Chvátal. (*Hutník*, (Prague), 1956, 6, (1), 14–18). [In Czech]

CHVATAL, Vladimir, inz. (Ostrava)

Increase of capacity of O. H. furnaces and their modern design. Hut listy 16 no.12:856-862 D '61.

(Furnaces) (Steel)

PUNCOCHAR, Z., inz.; HRBEK, A.; CHVATAL, Vlad., inz.; VETSIKA, A.; KECLIK, V.; JENICEK, L.; POKORNY, A.; HOREJS, S.; ZIDEK, inz.

Information on metallurgy. Hut listy 16 no.6:445-455 Je '61.

PUNCOCHAR, Z., inz.; BENDA, O.; CHVOJKA, Jan, inz.; CHVATAL, V.; HRBEK, A.; KRUMNIKL, F.; HOREJS, S., inz.; TEINDL, J.; SESTAK, B.

Information on metallurgy. Hut listy 16 no.8:596-605 Ag '61.

PUNCOCHAR, Z., inz.; KECLIK, V.; JENICEK, L.; CHVATAL, V., inz.; ZIDEK, inz.; KOFRONEC, L.; BECVAR, J.; DEDEK, inz.

Information on metallurgy. Hut listy 17 no.3:216-226 Mr '62.

CHVATAL, Vladimir, inz. (Ostrava)

Experience in the intensification of the open hearth process by oxigen introduced by roof nozzles. Hut listy 19 no.7:466-474 Jl '64

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CZECH/34-59-12-2/44

AUTHORS: Skulari, Petr, Doctor and Chvátalová, Ludmila

TITLE: X-ray Investigation on the Hardening of Special Silumins

PERIODICAL: Hutnické listy, 1959, Nr 12, pp 1032 - 1038

ABSTRACT: A literary search has revealed the possibility of improving the mechanical properties of certain alloys by correct ageing but has revealed no detailed information on the conditions of ageing (temperatures of hardening and tempering and the appropriate heating times) and on the suitable composition of special silumins. It appears that so far the kinetics of unsaturated solid solutions of Al alloys, which changes with the addition of small quantities of certain elements, has not been adequately studied. Neither has the problem of the suitable composition of such special silumins been studied. The authors of this paper have studied the influence of small quantities of Mn and Ti on the kinetics of ageing of special silumins, containing 5% silicon, as a function of the conditions of the artificial ageing and the contents

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X-ray Investigation on the Hardening of Special Silumins

of a given addition. The changes in the structure during the shaping and the decomposition of the saturated AlSi solid solution were studied by X-ray structural analysis which provides the possibility of recording not only the character of the structure (size of the crystals, phase distribution) but also, by limiting the parameters, determining the state of the solid solution, disturbances in the lattice and the internal crystalline structure of the alloy. The structural studies were supplemented by hardness tests. The aim of the authors was to determine a suitable element, the required quantity of this element and the optimum conditions of artificial ageing (which can be achieved by short-duration heating prior to hardening and tempering) so as to produce an alloy with better mechanical properties. The authors assume that the prevailing view that decomposition of alloying elements in the solid solution of Al lasts a relatively long time is based on incomplete knowledge of the influence of small additions on the kinetics of saturated solid solutions. For producing the experimental alloys, the authors used

X-ray investigation on the Hardening of Special Silumins

a 99.5% purity Al, silicon containing 0.57% Fe, cathodic copper, electrolytic manganese, 99.90% purity Mg and Ti produced by the Kroll method. The heats were produced by high-frequency smelting or in an electric resistance furnace with a graphite crucible of about 1 kg capacity. The charge was fed in jointly with Mn and Cu and after smelting the melt was covered with salts of eutectic composition. Further alloying was effected in the following sequence: Si; Ti; Mg. Mg was added in the form of AlMg 10% and Ti in the form of AlTi 5%. The alloy was cast at 750 °C into small unpainted ingot moulds. The authors discuss in some detail the results obtained relating to the influence of Cu, Mg, Mn and Ti on the hardening of the investigated silumin alloys. In the preliminary tests, it was found that addition of 0.2% Mn to the base alloy containing 5% Si, 0.2% Cu and 0.25% Mg brought about a considerable refining of the structure, which was very uniform. In the further tests, the influences of Mn and Ti were investigated in greater detail

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X-ray Investigation on the Hardening of Special Silumins

on two alloys which contained 5% Si and 0.2% Cu and differed in their Mg and Mn contents which were, respectively, 0.42 and 0.53% Mg and 0.33 and 0.24% Mn. It was found that addition of 0.2% Mn or 0.2% Ti leads to a considerable refining of the structure of the alloy and to an increase in the hardness of special silumins, containing 5% Si, after hardening. For the alloy containing 5% Si, 0.2% Cu, 0.5% Mg, 0.14% Fe, 0.2% Mn, rest Al, the optimum heat-treatment conditions are: quenching in cold water from 450 °C after a heating time of 30 - 120 min; tempering from 180 °C after a heating time of 120 - 240 min. For an alloy of equal composition but containing 0.2-0.3% Ti instead of 0.2% Mn, the optimum heat-treatment conditions are: quenching in cold water from 500 °C after heating for 120 - 140 min; tempering from 180 °C after heating for 120 - 140 min. These heat-treatment conditions ensure a uniform structure of fine crystals, a constant lattice volume and an increase in the hardness by 100% as compared with that in the as-cast state; thereby Ti proved more active than Mn. The X-ray

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X-ray Investigation on the Hardening of Special Silumins

method used permits determining the trend for the further development of $AlSi_5$ alloys and proposing a suitable composition; the tests require a very small quantity of material and very simple preparation of the specimens. However, these tests have to be supplemented by foundry experiments and mechanical tests.
There are 7 figures and 13 references, of which 4 are Czech, 3 German, 2 English and 4 Soviet.

ASSOCIATION: Vyzkumný ústav kovů, Panenské Břežany
(Metal Research Institute, Panenské Břežany)

SUBMITTED: February 7, 1959

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